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EXAMINER	
DIBRINO, MARIANNE NMN	

ART UNIT	PAPER NUMBER
1644	

DATE MAILED: 11/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/043,649	MANCEBO ET AL.	
	Examiner	Art Unit	
	DiBrino Marianne	1644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11/12/02 & 8/27/04*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) *4 and 6-16* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3 and 5* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 November 2002 and 1/10/02* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *1/31/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's amendment filed 11/12/02 and response filed 8/27/04 are acknowledged and have been entered.

2. Applicant's election with traverse of Group I (claims 1-3 and 5), drawn to a SLIM nucleic acid encoding a SLIM protein that is able to bind Cb1 in Applicant's response filed 8/27/04 is acknowledged.

The basis for the traversal is that the eight groups set forth in the restriction requirement all stem from a common concept and theory, and are thus related, and that prosecution of all claims would not place a substantially greater burden on the Examiner.

There are two criteria for a proper requirement for restriction between patentably distinct inventions:

> (1) The inventions must be independent (see MPEP § 802.01, § 806.04, § 808.01) or distinct as claimed (see MPEP § 806.05 - § 806.05(I)); and
>
> (2) There must be a serious burden on the Examiner if restriction is not required (see MPEP § 803.02 § 806.04(a) - (j), § 808.01(a) and § 808.02). Regarding undue burden, the M.P.E.P. § 803 (July 1998) states that: "For purposes of the initial requirement, a serious burden on the examiner may be prima facie shown if the examiner shows by appropriate explanation either separate classification, separate status in the art, or a different field of search".

The restriction requirement enunciated in the previous Office Action meets this criterion of serious burden and therefore establishes that serious burden is placed on the Examiner by the examination of add The inventions are distinct for reasons elaborated in paragraphs 3-8 of the previous Office Action.

The requirement is still deemed proper and is therefore made FINAL.

Accordingly, claims 4 and 6-16 (non-elected Groups II-VIII) are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to non-elected inventions.

Claims 1-3 and 5 are currently being examined.

3. The disclosure is objected to because of the following informalities:

In the Brief Description of the Drawings, for the following figures, the descriptor "Figure" should be followed by the number and letter of the drawings for that figure. For example, Figure 1C-1-1C8 on page 7 at line 23, Figure 2C-1, 2C-2 on page 8 at line 3, Figure 3A-1-3A-4 on page 8 at line 14, Figure 3B-1-3B-3 on page 8 at line 21, Figure 4A-1-4A-4 on page 8 at line 35, Figure 6A-1-6A-5, 6B-1-6B-5, 6C-1-6C-3, 6E (is missing) on page 9 at line 18, Figure 7A-1-7A-2, 7B-1-7B-2 on page 9 at line 37, figure 8A-1-8A-3, 8B-1-8B-3 on page 10 at line 7.

Appropriate corrections are required.

4. The drawings were received on 11/12/02 and 1/10/02. These drawings are acceptable.

5. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 1-3 and 5 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims are directed to a product of nature, i.e., a gene encoding a SLIM protein. It is suggested that Applicant amend said claims to recite "An isolated SLIM nucleic acid molecule".

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 1-3 and 5 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The specification does not provide adequate written description of the claimed invention. The legal standard for sufficiency of a patent's (or a specification's) written description is whether that description "reasonably conveys to the artisan that the inventor had possession at that time of the. . .claimed subject matter", Vas-Cath, Inc. V. Mahurkar, 19 USPQ2d 1111 (Fed. Cir. 1991). In the instant case, the specification does not convey to the artisan that the Applicant had possession at the time of invention of the claimed composition recited in the instant claims.

The instant claims encompass (1) any SLIM nucleic acid molecule, including variants and allelic variants, (2) any SLIM nucleic acid molecule that *comprises* a nucleic acid sequence having at least about 90% identity to SEQ ID NO: 1, (3) further *comprises* SEQ ID NO: 1 in addition to a second nucleic acid molecule having at least about 90% identity to SEQ ID NO: 1 and (4) any SLIM nucleic acid molecule encoding a SLIM protein, *comprising* a nucleic acid sequence encoding an amino acid sequence having at least about 90% identity to SEQ ID NO: 2, all providing the SLIM protein encoded by the SLIM nucleic acid molecule comprises an N-terminal myristylation sequence, an N-terminal SH2 domain, an N-terminal SH3 domain, will bind Cb1 and may lack a tyrosine kinase domain. The said SLIM nucleic acid can *comprise* nucleic acid residues that flank a nucleic acid sequence having at least about 90% identity to SEQ ID NO: 1, or can be any allelic or variant nucleic acid molecule. There is insufficient disclosure in the specification on such a SLIM nucleic acid molecule.

As to the issue of "*comprises*", the specification does not disclose nucleic acid molecules that comprise SEQ ID NO: 1 or that comprise a nucleic acid sequence encoding an amino acid sequence having at least about 90% identity to SEQ ID NO: 2, or that comprise a nucleic acid sequence having at least about 90% identity to SEQ ID NO: 1 wherein the SLIM protein encoded by the SLIM nucleic acid molecule comprises an N-terminal myristylation sequence, an N-terminal SH2 domain, an N-terminal SH3 domain and will bind Cb1 and may lack a tyrosine kinase domain.

The specification discloses on pages 2-3 at the spanning line, page 7 at lines 34-37, page 62 at lines 11-12 and page 63 at lines 6-20 and 30-32, are that SLIM (SEQ ID NO: 2, Src-like inhibitory molecule), also referred to as SLAP-2, is an adapter molecule that impairs antigen receptor-mediated signal transduction leading to the blockage of antigen induced surface marker expression and induction of NFAT activity. The specification also discloses that SLIM contains an N-terminal consensus motif for myristylation, and SLIM binds to Cb1. The specification discloses that the myristylation consensus motif $MG_{1-4}T/S$ that is present in the N-terminal region of SLIM is most likely involved in membrane association and appears to play a critical role in SLIM function, as a single amino acid residue mutation in the motif abrogated inhibition of CD69 induction in response to antigen receptor induced signaling (pages 62 at lines 6-19). The specification discloses that a portion or all of the C-terminal 67-amino acid residues appear to be important for association with Cb1 and the absence of the said C-terminal region abrogated inhibition of CD69 upregulation in response to antigen receptor induced signaling, although its loss was partially compensated by higher level of protein overexpression (pages 62 at lines 21-38, page 63, and paragraph spanning pages 57 and 58). The specification further discloses that SLIM activity or bioactivity is meant at least one biological activity of SLIM protein and/or nucleic acid, including, but not limited to binding to Cb1, binding to at least one phosphotyrosine containing SLIM binding partner (including tyrosine kinases and phosphatases that associate with antigen receptor in lymphocytes) binding to at least one SLIM binding partner comprising a proline rich region (which binding partners include the aforementioned tyrosine kinases and phosphatases), modulation of antigen receptor induced lymphocyte activation, modulation of surface marker expression associated with lymphocyte

activation, particularly CD69 expression, modulation of promoter activity associated with lymphocyte activation, particularly NFAT-responsive promoter activity, modulation of lymphocyte proliferation, and binding to tyrosine phosphorylated proteins following antigen receptor activation (page 35 at lines 17-27).

The specification does not disclose a SLIM nucleic acid molecule encoding a SLIM protein except for SEQ ID NO: 1, or a SLIM protein except for SEQ ID NO: 2 or a single amino acid substitution variant that destroys the myristylation consensus sequence or a 67-amino acid C-terminal truncation variant that abolishes Cb1 association, nor a SLIM nucleic acid molecule encoding a SLIM protein *comprising* a nucleic acid sequence including those recited in the instant claims. The specification does not disclose a definition of "SLIM nucleic acid", nor of "SLIM protein".

Although the specification discloses some structural features that appear to be required for membrane association (myristylation sequence), associating with phosphotyrosine regions in binding partners (N-terminal SH2 domain) or with Pro-rich regions in binding partners (N-terminal SH3 domain), or a portion of an amino acid sequence that appears to be involved in Cb1 binding, (the C-terminal 67 amino acid residues of SEQ ID NO: 2), the specification discloses that a single amino acid substitution in the myristylation sequence in SEQ ID NO: 2 is sufficient to abrogate inhibition of CD69 induction in response to antigen receptor induced signaling and that overexpression of the C-terminal deletion mutant can partially compensate for loss of upregulation of CD69 expression, i.e., the specification does not disclose what combination of these features as well as others in SEQ ID NO: 2 or *comprising* SEQ ID NO: 2 are critical to the structure and function of the genus claimed.

One of ordinary skill in the art would reasonably conclude that the disclosure fails to provide a representative number of species to describe the genus as broadly claimed.

9. Claims 1-3 and 5 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected to make and/or use the invention.

The specification has not enabled the breadth of the claimed invention because the instant claims encompass (1) any SLIM nucleic acid molecule, including variants and allelic variants, (2) any SLIM nucleic acid molecule that *comprises* a nucleic acid sequence having at least about 90% identity to SEQ ID NO: 1, (3) further *comprises* SEQ ID NO: 1 in addition to a second nucleic acid molecule having at least about 90% identity to SEQ ID NO: 1 and (4) any SLIM nucleic acid molecule encoding a SLIM protein, *comprising* a nucleic acid sequence encoding an amino acid sequence having at least about 90% identity to SEQ ID NO: 2, all providing the SLIM protein encoded by the SLIM nucleic acid molecule comprises an N-terminal myristylation sequence, an N-terminal SH2 domain, an N-terminal SH3 domain, will bind Cb1 and may lack a tyrosine kinase domain. The said SLIM nucleic acid can *comprise*

nucleic acid residues that flank a nucleic acid sequence having at least about 90% identity to SEQ ID NO: 1, or can be any allelic or variant nucleic acid molecule. The state of the art is such that it is unpredictable in the absence of appropriate evidence whether the claimed nucleic acid molecules can be made and used.

As to the issue of "*comprises*", the specification does not disclose nucleic acid molecules that comprise SEQ ID NO: 1 or that comprise a nucleic acid sequence encoding an amino acid sequence having at least about 90% identity to SEQ ID NO: 2, or that comprise a nucleic acid sequence having at least about 90% identity to SEQ ID NO: 1 wherein the SLIM protein encoded by the SLIM nucleic acid molecule comprises an N-terminal myristylation sequence, an N-terminal SH2 domain, an N-terminal SH3 domain and will bind Cb1 and may lack a tyrosine kinase domain.

The specification discloses on pages 2-3 at the spanning line, page 7 at lines 34-37, page 62 at lines 11-12 and page 63 at lines 6-20 and 30-32, are that SLIM (SEQ ID NO: 2, Src-like inhibitory molecule), also referred to as SLAP-2, is an adapter molecule that impairs antigen receptor-mediated signal transduction leading to the blockage of antigen induced surface marker expression and induction of NFAT activity. The specification also discloses that SLIM contains an N-terminal consensus motif for myristylation, and SLIM binds to Cb1. The specification discloses that the myristylation consensus motif $MG_{1-4}T/S$ that is present in the N-terminal region of SLIM is most likely involved in membrane association and appears to play a critical role in SLIM function, as a single amino acid residue mutation in the motif abrogated inhibition of CD69 induction in response to antigen receptor induced signaling (pages 62 at lines 6-19). The specification discloses that a portion or all of the C-terminal 67-amino acid residues appear to be important for association with Cb1 and the absence of the said C-terminal region abrogated inhibition of CD69 upregulation in response to antigen receptor induced signaling, although its loss was partially compensated by higher level of protein overexpression (pages 62 at lines 21-38, page 63, and paragraph spanning pages 57 and 58). The specification further discloses that SLIM activity or bioactivity is meant at least one biological activity of SLIM protein and/or nucleic acid, including, but not limited to binding to Cb1, binding to at least one phosphotyrosine containing SLIM binding partner (including tyrosine kinases and phosphatases that associate with antigen receptor in lymphocytes) binding to at least one SLIM binding partner comprising a proline rich region (which binding partners include the aforementioned tyrosine kinases and phosphatases), modulation of antigen receptor induced lymphocyte activation, modulation of surface marker expression associated with lymphocyte activation, particularly CD69 expression, modulation of promoter activity associated with lymphocyte activation, particularly NFAT-responsive promoter activity, modulation of lymphocyte proliferation, and binding to tyrosine phosphorylated proteins following antigen receptor activation (page 35 at lines 17-27).

The specification does not disclose a SLIM nucleic acid molecule encoding a SLIM protein except for SEQ ID NO: 1, or a SLIM protein except for SEQ ID NO: 2 or a single amino acid substitution variant that destroys the myristylation consensus sequence or a 67-amino acid C-terminal truncation variant that abolishes Cb1 association, nor a SLIM nucleic acid molecule encoding a SLIM protein *comprising* a nucleic acid sequence including those recited in the instant claims. The specification does not disclose a definition of "SLIM nucleic acid", nor of "SLIM protein".

Although the specification discloses some structural features that appear to be required for membrane association (myristylation sequence), associating with phosphotyrosine regions in binding partners (N-terminal SH2 domain) or with Pro-rich regions in binding partners (N-terminal SH3 domain), or a portion of an amino acid sequence that appears to be involved in Cb1 binding, (the C-terminal 67 amino acid residues of SEQ ID NO: 2), the specification discloses that a single amino acid substitution in the myristylation sequence in Seq ID NO: 2 is sufficient to abrogate inhibition of CD69 induction in response to antigen receptor induced signaling and that overexpression of the C-terminal deletion mutant can partially compensate for loss of upregulation of CD69 expression, i.e., the specification does not disclose what combination of these features as well as others in SEQ ID NO: 2 or *comprising* SEQ ID NO: 2, are critical to the structure and function of the genus claimed, nor which nucleic acid residues would correlate to those said critical features.

Because of this lack of guidance, the extended experimentation that would be required to determine which substitutions, additions, deletions would be acceptable to retain functional activity and what that degree of functional activity should be, especially as the fact that the relationship between the sequence of a peptide and its tertiary structure (i.e., its activity) are not well understood and are therefore not predictable (Ngo et al. The Protein Folding Problem and Tertiary Structure Prediction, Merz & LeGrand, Birkhauser Boston, pages 491-495, 1994, entire article, especially Section 6, paragraph 1, of record), it would require undue experimentation for one of skill in the art to arrive at other amino acid sequences that would have functional activity. In other words, since it would require undue experimentation to identify amino acid sequences that have functional activity, it would require undue experimentation to make and use the corresponding sequences and hence the corresponding nucleic acid molecules.

There is insufficient guidance in the specification as to how to make and/or use instant invention. Undue experimentation would be required of one skilled in the art to practice the instant invention. See In re Wands 8 USPQ2d 1400 (CAFC 1988).

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claims 1-3 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. Claims 1-3 and 5 are indefinite in the recitation of "nucleic acid" because it is not clear what is meant. It is suggested that Applicant amend said claims to recite "nucleic acid molecule".

b. Claim 3 is indefinite in the recitation of "further comprising" because it is not clear what is meant, i.e., if the SLIM nucleic acid recited in claim 1 comprises a second nucleic acid comprising SEQ ID NO: 1 in addition to the nucleic acid sequence having at least about 90% identity to the nucleic acid sequence set forth in SEQ ID NO: 1.

12. For the purpose of prior art rejections, the filing date of the instant claims 1-3 and 5 is deemed to be the filing date of the instant application, i.e. 1/10/02, as the parent provisional application 60/260,953 does not support the claimed limitations of the instant application. The limitation "comprising a nucleic acid sequence having at least about 90% identity to the nucleic acid sequence set forth in Figure 2A (SEQ ID NO: 1)" is only disclosed in the instant application. The disclosure in 60/260,953 is for "homology of the nucleic acid sequence as compared to the nucleic acid sequence of Figure 2 is...most preferably greater than 90%" (page 29 at the last paragraph).

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

14. Claims 1-3 and 5 are rejected under 35 U.S.C. 102(a) as being anticipated by Holland et al (J. Exp. Med. 194(9), 11/5/01, pages 1263-1276, IDS reference) as evidenced by GenEmbl Accession No.AF326353 and as evidenced by admissions in the specification on pages 2-3 at the spanning line, page 7 at lines 34-37, page 62 at lines 11-12 and page 63 at lines 6-20 and 30-32.

Holland et al teach the nucleic acid molecule that encodes SLAP-2, the SLAP-2 protein contains an NH2-terminal myristylation consensus sequence and SH3 and SH2 Src homology domains, but lacks a tyrosine kinase domain and binds Cb1.

GenEmbl Accession No.AF326353 teaches a nucleic acid molecule encoding SLAP-2, and that this nucleic acid molecule is cited in Holland et al and it is 100% identical to SEQ ID NO: 1 of the instant application and it encodes the protein sequence of SEQ ID NO: 2 of the instant application.

The admissions in the specification on pages 2-3 at the spanning line, page 7 at lines 34-37, page 62 at lines 11-12 and page 63 at lines 6-20 and 30-32, are that SLIM is referred to as SLAP-2, SLIM (SEQ ID NO: 2) has SH2 and SH3 domains, SLIM contains an N-terminal consensus motif for myristylation, and SLIM binds to Cb1, respectively.

15. Claims 1-3 and 5 are rejected under 35 U.S.C. 102(a) as being anticipated by GenEmbl Accession No.AF326353 as evidenced by Holland et al (J. Exp. Med. 194(9), 11/5/01, pages 1263-1276, IDS reference) and as evidenced by admissions in the specification on pages 2-3 at the spanning line, page 7 at lines 34-37, page 62 at lines 11-12 and page 63 at lines 6-20 and 30-32.

GenEmbl Accession No.AF326353 teaches a nucleic acid molecule encoding SLAP-2, and that this nucleic acid molecule is cited in Holland et al and it is 100% identical to SEQ ID NO: 1 of the instant application and it encodes the protein sequence of SEQ ID NO: 2 of the instant application.

Holland et al teach the nucleic acid molecule that encodes SLAP-2, the SLAP-2 protein contains an NH2-terminal myristylation consensus sequence and SH3 and SH2 Src homology domains, but lacks a tyrosine kinase domain and binds Cb1.

The admissions in the specification on pages 2-3 at the spanning line, page 7 at lines 34-37, page 62 at lines 11-12 and page 63 at lines 6-20 and 30-32, are that SLIM is referred to as SLAP-2, SLIM (SEQ ID NO: 2) has SH2 and SH3 domains, SLIM contains an N-terminal consensus motif for myristylation, and SLIM binds to Cb1, respectively.

16. Claims 1-3 and 5 are rejected under 35 U.S.C. 102(e) as being anticipated by US 2004/0039163A1 as evidenced by admissions in the specification on pages 2-3 at the spanning line, page 7 at lines 34-37, page 62 at lines 11-12 and page 63 at lines 6-20 and 30-32, and by Holland et al (J. Exp. Med. 194(9), 11/5/01, pages 1263-1276, IDS reference).

US 2004/0039163A1 discloses nucleic acid molecule SEQ ID NO: 74, nucleic acid nucleotides 398-1180 of which encode a protein of 261 amino acid residues that is 100% identical to SEQ ID NO: 2 (also 261 amino acid residues in length) of the instant application, said protein having about 44% identity with human SLAP (especially pages 92-95, Tables 13A, 13B, 13D and 13E).

The admissions in the specification on pages 2-3 at the spanning line, page 7 at lines 34-37, page 62 at lines 11-12 and page 63 at lines 6-20 and 30-32, are that SLIM is referred to as SLAP-2, SLIM (SEQ ID NO: 2) has SH2 and SH3 domains, SLIM contains an N-terminal consensus motif for myristylation, and SLIM binds to Cb1, respectively.

Holland et al teach the nucleic acid molecule that encodes SLAP-2, the SLAP-2 protein contains an NH2-terminal myristylation consensus sequence and SH3 and SH2 Src homology domains, but lacks a tyrosine kinase domain and binds Cb1.

As pertains to the recitation of "will bind to Cb1" in claim 1 and "wherein said SLIM protein lacks a tyrosine kinase domain" in claim 2, since the protein encoded by SEQ ID NO: 74 is identical to SEQ ID NO: 2 of the instant application, the two limitations are inherent properties of the reference protein.

17. No claim is allowed.

18. It is requested that Applicant amend the specification on page 9 at line 16 and on page 63 at lines 8, 23, 30 and 31 to correct the spelling of "SLIM-DC" to "SLIM-ΔC".
Aside from these instances, the lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware of in the specification.

19. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Marianne DiBrino whose telephone number is 571-272-0842. The Examiner can normally be reached on Monday, Wednesday and Friday.

If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, Christina Y. Chan, can be reached on 571-272-0841. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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November 22, 2004

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